**6-1**

1) 84 feet

2) 25.6 inches, 38.4 inches

4) 3

7) 45 inches, 30 inches, 25 inches

**6-2**

2) yes RSTU ~ VWXY

**6-3**

1) 

2) 

3) , x = 3, RT = 27, SV = 30

4) , x = 2.5, PN = 7.5, MN = 10.5

**6-4**

1) 

2) x = 4, AD = 18, DR = 30, QR = 40

3) 12

4) 5

5) 3.3

**6-5**

1) 45

2) 33

**7.1**

7. ; 0.4

8. ; 1.2

9. ; 0.3

10. ; 19.6

11. ; 5.7

**7.2**

1. right

2. acute

3. acute

4. right

**7.3**

x ; y

1. 45 ; 13

2. 12.5 ; 12.5

3. 15 ; 15

4. 16; 24

5. 50; 100

6. 18 ; 6

**7.4**

11. 77.2

12. 38.7

13. 6.6

**7.5**

1. 14.9

2. 153.8 ft

3. 2052.6 ft

**8.1**

1. 4140

2. 5040

3. 3600

7. 15

8. 30

9. 20

10. 156; 24

11. 152.3; 27.7

**8.2**

1. ∠UTS

2. ∠TSR; ∠TUR

3. 

4. 

5. 

6. 

7. 28

8. 28

9. 89

10. 91

11. 61

12. 63

13. 6

14. 4

15. 6

16. 11

**8.3**

1. no

2. yes; diagonals bisect each other

3. yes; definition of parallelogram.

4. 9; 13

5. 4; 1

6. 3; 6

7. yes

8. no

9. yes

10. yes

**8.4**

1. 15

2. 33

3. 28

4. 21

7. 52

8. 38

9. 76

10. 104

11. 52

12. 52

13. 38

14. 104

15. 76

16. 38

17. 52

18. 90

**8.5**

1. 55

2. 70

3. 35

4. 15

5. 60

6. 30

7. 10.5

8. 12

**8.6**

1. isosceles trapezoid

2. trapezoid

5. 18

6. 19, 84, 144

7. 18, 52, 128

8. 15

**10.1**

1. d = 36 in.,

C = 36π in. (113.10)

2. r = 17.1 ft

C= 34.2π ft (107.44)

3. r = 6 m, d = 12 m

4. r = 13.50 mi.,

d = 26.99 mi.

7. 10π in.

8.  cm

9. yd

10. m

**10.2**

1. 90 2. 23

3. 113 4. 157

5. 67 6. 157

7. 90 8. 65

9. 45 10. 335

11. 155 12. 245

**10.3**

1. 11 2. 11

3. 9 4. 9

5. 70 6. 60

7. 30 8. 35

9. 30 10. 15

11. 15 12. 15

**10.4**

answers are given in the numerical order of angles

1. 21,77,88

2. 60 each

3. 55,105,20,55, 105,20

4. 35,110,35,70, 55, 55,35,

110, 35, 55, 55, 70

5. 50,40,90, 90, 40, 50

6. 96,56,28,96,56,28

7. diameter of circle

8. 85

**10.5**

1. yes 2. no 3. 3

4.  5. 8

**10.6**

1. 75 2. 142.5

3. 110 4. 20

5. 25 6. 10

**10.7**

1. 5 2. 6

3. 3 4. 3.0

5. 5.7 6. 2.2

**10.8**

5. (x-6)2 + (y-12)2 = 49

6. (x-4)2 + y2 = 16

7. (x-6)2 + (y+6)2 =121

8. (x+5)2 + (y-1)2= 1

9. Center (0,0); r = 5

11. Center (3,-1);

r = 3

13. r = 1

**11.1**

1. A =  in2 (259.8)

p = 70 in.

2. A =  ft2 (178.2)

p = 74 ft

3. A = 113.5 m2; p = 49m

4. square; 4 u2

6. parallelogram;

12 u2

**11.2**

1. 432

2.  (296.2)

3. (561.2)

4. 8

5. 37.5

8. 16

9. 8

**11.3**

1. 182.3 ft2

2.  in2 (35.1)

3. 173.8 ft2

5. 66.3 cm2

6. 61.7 ft2

7. 37.4 in2

**11.4**

1. 187.2

2. 420

3. 88.3

5. 15.5

**11.5**

1. 62.8 in2; 0.20

2. 87.3 in2; 0.28

5. 54.5 u2; 0.09

6. 47.6 u2; 0.31

**12.1**

3-5 check with teacher if

needed.

**12.3**

1. 96; 166

2. 180; 216

3. 216; 264

6. 3411.0 ; 4086.0

7. 7.5 in.

**12.4**

5. 51.8 cm2 6. 1737.3 ft2

7. 34.6 in2 8. 3421.2m2

**12.5**

1. 175 cm2 2. 853.4 in2

3. 3032.7 m2 4. 255.4cm2

**12.6**

1. 332.9 in2 2. 2513.3ft2

3. 2191.9cm2 5. 260.2cm2

**12.7**

1. 180,955.7 ft2

2. 5674.5 m2

5. 47.5 cm2

6. 805.4 in2

**13.1**

1. 426,437.6 m3

2. 5102.4 ft3

3. 2160 in3

4. 750 in3

5. 970.9 cm3

**13.2**

1. 62.5 ft3

2. 4188.8 mm3

4. 78.5 m3

5. 207.8 m3

**13.3**

1. 356,817.9 ft3

2. 1.1 m3

3. 10,289.8 mm3

4. 14.1 cm3

**13.4**

2. similar;

scale factor 2:17 ;

area ratio 4:289

volume ratio: 8:4913

3. neither

4. congruent; all ratios are 1:1.